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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,095	12/30/2000	Govindan Nair	42390P9928	8255

8791 7590 07/25/2006

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EXAMINER	
MARTIN, CIARA A	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/752,095	NAIR, GOVINDAN	
	Examiner	Art Unit	
	Ciara Martin	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-13 and 15-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 8-13, and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment filed on May 22, 2006. Claims 1, 3, 8, 10, 15 and 17 have been amended. Claims 7, 14 and 21 have been canceled. Claims 1-6, 8-13, and 15-20 are pending. Claims 1-6, 8-13, and 15-20 represent a method and apparatus for allocating buffers shared among protocol layers in a protocol stack.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8-13, and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dennie US 6341338 B1.

As per claims 1, 8 and 15, Dennie teaches a method, apparatus and an article of manufacture comprising:

receiving a data frame at a first communications protocol software module (4:3-9);

allocating a memory buffer in which to store at least some portion of the data frame (3:1-22);

the memory buffer pointed t by a pointer associated with a first communication protocol software module (CPSM) (3:1-22);

storing the at least some portion of the data frame in the memory buffer (3:1-22);

accessing the at least some portion of the data frame in the memory buffer pointed to by the pointer associated with the first CPSM to process the data frame by the first CPSM (3:23-29);

transferring the pointer associated with the first CPSM from the first CPSM to associate with a second CPMS and thus transferring control of processing the data frame in the memory buffer from the first CPSM to the second CPSM (5:66-6:13); and

accessing the at least some portion of data frame in the memory buffer pointed to by the pointer associated with the second CPSM to process the data frame by the second CPSM (5:45-55, 5:66-6:13).

As per claims 2, 9 and 16, Dennie teaches the method of claim 1, the apparatus of claim 8, and the article of manufacture of claim 15, respectively, wherein allocating a memory buffer in which to store the at least some portion of the data frame comprises allocating a memory buffer from a pool of available memory buffers in which to store the at least some portion of the data frame (3:1-22).

As per claims 3, 10 and 17, Dennie teaches the method of claim 1, the apparatus of claim 8, and the article of manufacture of claim 15, respectively, wherein accessing the data frame in the memory buffer pointed to by the pointer associated with the first CPSM to process the data frame, comprises providing a first pointer to a beginning of the memory buffer and a second pointer to an ending of the memory buffer (3:1-22) .

As per claims 4, 11 and 18, Dennie teaches the method of claim 3, the apparatus of claim 10, and the article of manufacture of claim 15, respectively, further providing a length of the memory buffer to the first communications protocol module (3:1-22).

As per claim 5, 12 and 19, Dennie teaches the method of claim 1, the apparatus of claim 8, and the article of manufacture of claim 15, respectively, further comprising returning the memory buffer to the pool of available memory buffers when processing of the data frame is completed (3:53-58).

As per claims 6, 13 and 20, Dennie teaches the method of claim 5, the apparatus of claim 12, and the article of manufacture of claim 19, respectively, wherein returning the memory buffer to the pool of available memory buffers when processing of the data frame is completed, comprises inserting the pointer to the memory buffer in to a linked list of available memory buffers (3:53-58, 5:45-55; the use of a linked list is inherent).

Response to Arguments

3. Applicant's arguments filed on May 22, 006 have been fully considered but they are not persuasive.

Applicant argues in substance that:

A) Dennie does not disclose a buffer block within the shared memory which is shared by different thread at different times.

B) Dependent claims 2-6, 9-14 and 16-20 are allowable over Dennie.

In response to:

A) Dennie teaches avoiding confusing the operation of a process by ensuring that only one thread has access to an area of memory at a time (1:29-43), mutual

exclusion where the OS only permits one thread at a time to access shared memory (1:65-2:8), when a thread required memory it first determines whether another thread is currently accessing the shared memory (3:30-52) and in memory block allocation only one thread at a time can be allocated a block (3:59-4:2).

B) Dependent claims 2-6, 9-14 and 16-20 are not allowable over Dennie because they depend from rejected independent claims 1, 8 and 15 for the reasons cited in response (A).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ciara Martin whose telephone number is 571-272-7507. The examiner can normally be reached on M-F 6:30- 4:00 with second Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CM
7/14/06

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